

CLAIMS

1. An alternating phase-shifting lithographic mask comprising:
a plurality of 0 degree phase-shifting regions; and
a plurality of corresponding 180 degree phase-shifting regions, wherein a first set of the 180 degree phase-shifting regions includes a first bias and a second set of the 180 degree phase-shifting regions includes a second bias.

2. The alternating phase-shifting lithographic mask of Claim 1, wherein the first set includes optical proximity correction that minimizes changes to the first bias and the second set includes optical proximity correction that minimizes changes to the second bias.

3. A lithographic mask that provides phase-shifting for features on a binary mask, the lithographic mask comprising:
a plurality of first phase-shifting regions; and
a plurality of second phase-shifting regions,
wherein each first phase-shifting region has a corresponding second phase-shifting region,
wherein a phase difference between the first and second phase-shifting regions is approximately 180 degrees,
wherein each second phase-shifting region has a size based on a size of its corresponding first phase-shifting region.

4. The lithographic mask of Claim 3, wherein at least one of the plurality of first phase-shifting regions and the plurality of second phase-shifting regions include optical proximity correction.

5. A method of fabricating an alternating phase-shifting mask; the method comprising:

providing a plurality of first phase-shifting regions; and

providing a plurality of second phase-shifting regions;

wherein each first phase-shifting region has a corresponding second phase-shifting region, wherein a difference in phase between the first phase-shifting region and the second phase-shifting region is approximately 180 degrees, wherein a size of the second phase-shifting region is based on a size of the first phase-shifting region, thereby compensating for three dimensional effects on the alternating phase-shifting mask caused by the second phase-shifting region.